DOCUMENT RESUME

ED 207 642 JC 810 561

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TITLE An Examination of the Perceived Educational Needs of a Sample of the Population of the Service Area of Kirkwood Community College.
PUB DATE 81
NOTE 89p.; Ed. D. Dissertation, Nova University.

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Academic Aspiration; *Adults; Adult Students; *Community Attitudes; Community Colleges; Community Surveys; *Educational Needs; Educational Television; Extension Education; *Individual Characteristics; Needs Assessment; Off Campus Facilities; Questionnaires; Two Year Colleges
IDENTIFIERS Kirkwood Community College IA

ABSTRACT

In 1981, a study was conducted at Kirkwood Community College (KCC) to assess community attitudes towards delivery systems and programs, such as community education centers and course offerings via telephone and television. A telephone survey was conducted of 500 residents in non-metropolitan areas of the college's service district requesting information on course-taking experience and plans; educational goals; subject interests; preferences with regard to scheduling and to on-campus, community center, or televised courses; barriers to enrollment; familiarity with KCC courses; number of family members; educational level; employment status; age; income; place of residence; and sex. Study findings, based on a 85.6% response rate, include the following: (1) nearly 80% of the respondents who planned on taking courses preferred a media-based instructional delivery system; (2) no specific disciplinary area attracted the interest of more than 15% of the respondents; (3) almost 50% of those not planning future enrollment indicated that they were "too old," while 25% indicated they would not enroll because they had completed their education; (4) those planning to enroll expected to attend part-time and desired night classes; and (5) personal growth and desire to obtain a good job were the most frequently cited educational goals. The study report reviews related literature, details methodology and results, and includes conclusions and recommendations. The questionnaire is appended. (KL)

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ED207642

An Examination of The Perceived Educational Needs of A Sample of The Population of The Service Area of Kirkwood Community College

William H. Rosberg

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A MAJOR APPLIED RESEARCH PROJECT
PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

1981

JC 810 561

ACKNOWLEDGEMENTS

This project is the result of a growing interest over the past several years in the non-metropolitan segment of the service area of Kirkwood Community College and of the educational needs of area residents.

Many individuals have provided assistance which made completion of this project possible. Special appreciation is expressed to the following:

Dr. Ross Moreton, the writer's MARP Advisor, for his guidance in the conduct and development of this study and the writing of the project report, Dr. Eldon Everhart, Iowa Lakes Cluster Coordinator, for the time he devoted to the NOVA program, and Dr. George Barton for his assistance with the finer points of research design.

Gratitude is also due to Dr. Donald Page, Dean of Support Services and Director of Institutional Research, Kirkwood Community College for his assistance and support in conducting community-based research.

A special expression of gratitude and appreciation is given to the writer's wife, Merilee and sons, Peter and Trent, for their constant encouragement and support.

Abstract of a Major Applied Research Project Presented to NOVA University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education.

AN EXAMINATION OF THE PERCEIVED EDUCATIONAL NEEDS OF A SAMPLE OF THE POPULATION OF THE SERVICE AREA OF KIRKWOOD COMMUNITY COLLEGE

by

William H. Rosberg

April, 1981

Kirkwood Community College, Cedar Rapids, Iowa, has developed a series of delivery systems and programs to attract non-traditional and distant learners. Within the past four years, credit offerings have been initiated in community education centers in primarily rural counties. To offer classes in these areas it has been necessary to utilize varied mediated learning options such as telephone and microwave-televison based delivery systems. Rapid expansion of enrollment, of program offerings and of locations at which these programs have been offered has been the pattern throughout the history of the college. As state and service area populations stabilize and the number of "traditional" college age residents declines, it becomes necessary to determine more regularly and more precisely community perceptions of needs for educational services and programs.

This study is an examination of attitudes and, to some degree, effects of changes initiated over the past four years. These include development of new community education

centers, development and expansion of telephone, microwave televison, instructional fixed-service televison, cable televison, and broadcast televison course offerings.

A telephone survey of a structured random sample of 500 residents of the six non-metropolitan counties of the college service area was conducted. An initial mailing, followed by a telephone interview resulted in successful contact with and interview of 428 of the 500 respondent households. This was an 85.60 percent response rate.

Data generated in this study indicate that nearly 80 percent of the respondents in the non-metropolitan service area of Kirkwood Community College, who plan on taking classes, would prefer utilizing a media-based instructional delivery system rather than traveling a greater distance to the main campus of the college in Cedar Rapids, Iowa. A broad range of courses were indicated as desired with no specific disciplinary area attracting the interest of more than 15 percent of those responding.

Those individuals not planning future enrollment at the college indicated that they were "too old" (almost 50 percent) or that they had already completed their education (25 percent). Those who plan to attend expect to be part-time students and want night classes. They are older, on the average, than the current student population. They intend to take classes for personal growth rather than seeking a degree.

Changed marketing techniques to meet the perceptions

of this "new" population are suggested. Sources of their information on the college and perceptions of the quality of education provided are explored. The study includes data on those individuals who agreed to respond. It is an examination of the needs of the service area population of a specific institution, Kirkwood Community College, Cedar Rapids, Iowa.

Data generated by this study will assist in planning and development of additional course offerings, modes of instruction, and location of additional community education centers. As such, data will be useful not only to Kirkwood Community College, but should also be valuable to other community colleges with rural service areas and stable or declining populations in their service areas.

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Chapter One

INTRODUCTION, BACKGROUND, AND SIGNIFICANCE

> The community college is no longer a "giver" to those who are inclined to accept its gifts; its newer role is co-operation with the community in joint efforts to put people back together in meaningful human endeavors (Harlacher:1974:6).

In acting as positive change agents in society, the community colleges must first determine the needs of the community and then respond to them. This Major Applied Research Project is intended to fulfill part of this process, an examination of perceived educational needs of the service area population of Kirkwood Community College.

Kirkwood Community College, Cedar Rapids, Iowa, is a comprehensive institution, founded in 1966. Since that time, it has grown continually. Enrollment in credit programs in the Fall, 1980 quarter reached 5,011, an increase in full time equivalent numbers of about 5.5 percent (Dimension:1980:1). The establishment of the college and its growth is part of the pattern of egalitarian access to post-secondary education that has been a product of the late 1960's and the 1970's (Cross:1974:11).

As the college enters the 1980's, the mood of society and the assumption of continuing growth have both been challenged. "Clearly the era of rapid growth is over" (Myran:1979:45). As a result of this changed mood,

colleges have begun to seriously examine non-traditional student populations and to attempt to bring these individuals onto their campuses and into their classrooms.

> Most post-secondary institutions simply open their regular classes to adults and feel, quite rightly, that they are serving the adult learner. But completely satisfactory results do not always follow (Hamilton:1976:35).

All too often, this has been the pattern with all types of non-traditional learners.

Attempting to meet the new needs created by an expanded clientele has been a major problem.

> New students to higher education...are operationally defined as those scoring in the lowest third among national samples of young people on traditional tests of academic ability. Women and young people from ethnic minorities are also New Students (Cross:1974:13).

Yet another category of new students has been described as distant learners. In the 1970's, many attempts were made to identify and serve this population. One definition of this group was developed in a description of the student population of the University of Mid-America. They describe their typical student as:

> ...much older than his on-campus counterpart, with a median age of 37. A full two-thirds are women, many of them with young children and heavy household responsibilities.
>
> Nearly half of all the students never attended college. Many are working people with no time to attend classes, or farm families living hundreds of miles from the nearest campus (Gross: 1977:38).

In a specific study the University of Mid-America conducted on distant learner enrollees in programs they offered through the State University of Nebraska, they found:

> Approximately 50% of the learners have not participated in a formal educational experience during the five years previous to SUN enrollment. Career improvement and personal satisfaction goals are most often cited as reasons for enrolling. Approximately two-thirds of all enrollees hope to eventually obtain an academic degree at the graduate or undergraduate level (Bryan and Foreman: 1977:6).

To date, Kirkwood Community College has maintained a pattern of continued growth. This occured in a district with a nearly stable population. In 1970, the seven county service area of the college had a population of 330,134 (Iowa Development Commission:1980:73). Estimates of the 1980 population indicate approximately 345,270 (Iowa Development Commission:1980:94). To continue to grow the college has been forced to expand its services and attract greater numbers of non-traditional students.

The most recent complete data on student characteristics were compiled in 1977. An analysis of these data showed that "Fully 42% of Kirkwood's credit program students were over the age of 22. Further, 30% were 26 or older" (Kirkwood Community College:1979:34).

As the cost of commuting has risen, the college has experienced difficulty in attracting these older students, many of whom are forced to travel substantial distances. This first became a real problem after the 1973 gasoline shortages and price increases. As a result of these shortages plans were developed to provide course offerings in areas distant from the main campus thereby cutting student travel cost.

Extension courses which were being offered at that time, were not new. Such offerings have been part of higher education in America for many years. However, a traditional extension class requires a minimum enrollment that is often greater than could be generated at an attendance center in a rural county. Of the seven counties in the college service area, only two have urban centers. In the remaining five counties, populations vary from an estimated 24,000 down to approximately 15,000 (Iowa Development Commission:1980:67-68). A listing of the counties served and their estimated populations is appended (Appendix A).

To expand course availability, the college began to develop a range of new course types and delivery systems that would increase the number and variety of offerings while decreasing the number of students required at a given location to offer the courses. As a first attempt, Kirkwood Community College began offering courses using a multi-site telephone network system in January, 1978.

> Telenetwork provided a partial answer. With six meeting sites spotted throughout the rural areas, the college can deliver instruction to groups of two or three citizens meeting in their hometowns and linked to an instructor and class group on the central campus in Cedar Rapids (Stewart and Duffy:1979:21).

In addition, the college began offering credit for broadcast televison courses through the state public broadcasting network in the Fall of 1978 and credit for newspaper courses at the same time.

In September, 1980, the college began operation of a microwave televison system offering point-to-point interactive two-way televison service. At the present time, the system links two sites, the main campus and a learning center in Iowa City, Iowa. The second site is approximately twenty-five miles away, in the second largest county in the college service area. Within three years, the system should link nine seperate sites in the college's seven-county service area.

Before the end of the 1980-81 academic year, an instructional fixed service televison system should also be in operation. Within three years, it will be capable of broadcasting on up to twenty-four separate channels to special receivers in the service area and receiving voice transmissions back.

Finally, the college is serving as the origination site for a college-operated educational televison station serving the Cedar Rapids-Marion, Iowa, metropolitan area. This channel should allow potential access to as many as 50,000 individuals at home on a 12-15 hour daily basis.

Expansion of ability to deliver coursework is not, by itself, sufficient. The college has developed a large number of non-traditional delivery systems. These systems have allowed initiation of service in small communities that would normally be unable to support college attendance centers. Several basic questions remain unanswered.

Specifically, the college must assess willingness of non-traditional students to enroll in classes offered in their communities using mediated delivery systems such as conference telephone or televison and what these new students perceive as courses or programs in which they would enroll.

Research Questions

Since 1977, Kirkwood Community College, Cedar Rapids, Iowa, has been actively attempting to expand programs and services to distant learners. This has been occuring through the development and implementation of a variety of mediated learning approaches and through use of a series of community centers spread throughout the seven-county service area of the college. Such services and a commitment to them are stated institutional objectives:

> Kirkwood should extend the accessability and increase the flexiblity of credit programs whenever academically feasible through scheduling, cost control, course/program design and innovative delivery systems (Kirkwood Community College: 1979:4).

This commitment, taken directly from a listing of institutional goals, is of prime importance to the college. To implement it, especially with the introduction of higher cost technologies such as microwave televison, requires a clear view of community needs. This is essential to allow concentration of resources in programs and geographic areas where perceived needs exist and therefore, where a

satisfactory level of participation can be achieved.

To determine the potential for student enrollment, it is essential to examine community interest in educational options and opportunities the college could provide. The volume of literature on needs assessment is substantial. Research however, failed to provide specific needs statements that appear directly applicable to this institution. It therefore seemed appropriate to conduct a study under the auspices of the college to attempt to identify such felt needs.

Student input has been continually sought through specific course evaluations and through exit interviews and follow-up questionnaires conducted through the Counselling Office, the Student Affairs Office, and the Dean of Students. Dialogue with the faculty has been ongoing through traditional channels, through the Planning Office of the College which maintains a continuing dialogue on needs with the staff, and through contract negotiations between the faculty and administration utilizing the state-approved collective bargaining mechanism.

The only area not regularly examined and questioned is the community in which the college functions. Demographic shifts are occuring. Public school enrollments are declining. Industries appear and disappear. The agricultural economy alternately prospers and suffers. All these factors lead to changing needs within the college service area. In 1978, a mail-out survey was used with a

sample population of district households. A structured random sample of 1900 households was drawn. Four hundred and one questionnaires were returned, for a return rate of 21.1 percent. Though the response rate was high for a mail-out questionnaire, it may be assumed that differences exist between the 21.1 percent who responded and the 78.9 percent who chose to ignore the mailing.

The data returned were quite useful. these data and information obtained in a faculty self-study and the collection of questionnaire data from students, were gathered as part of the college's master planning process. Based upon this input, changes in off-campus centers, delivery systems, and course offerings have been made. The college has implemented a microwave televison system, initiated instructional fixed service televison programming, programming via cable televison, and added an additional community learning center.

While these changes were being made, a series of other changes have occured elsewhere in the community. The beginning of the economic downturn in 1979-80 has resulted in a drastic increase in unemployment. The state's budget surplus has disappeared and probability of a general fund deficit has forced two mid-year adjustments in all state agency and school district budgets. A total of 4.6 percent was cut from current year budgets necessitating non-replacement of staff and equipment. Revenue cuts from planned levels have forced still deeper reductions in anticipated

revenues to all state agencies and school districts during the next fiscal year. As a result, while community college enrollment has continued to grow, at least partially due to lack of available employment, staff reductions have occured and state aid per student has declined. The budget situation has required the termination of 34 college staff members for the 1981-82 academic year, the first layoff in the college's history (Wallace:1981:C-1).

Do the changes made conform to perceived community needs? How can service best and most economically be provided? This has been a follow-up study, in large part replicating the initial mail-out survey, to provide data to be used in evaluating further changes. Such data are needed by the college to assess the effects of the new economic and political conditions as well as aiding in determination of the effectiveness of changes made as a result of the 1978 study. They should also be valuable to the body of community colleges considering similar assessments of stated community needs and facing comparable economic problems.

The state code in Iowa charges the college with the responsibiliby of periodically evaluating its program (Iowa: 1974:542-543). This study, in partially meeting this requirement, also provides demographic information useful in long-range planning.

Though the questions asked largely replicate questions asked in the earlier study (Kirkwood Community College:1979:1-83), the changed social, economic, and

political conditions, as well as the change in offered educational services made a new inquiry necessary. Specific data, particularly on the willingness of non-students to enroll and to utilize available instruction formats, is essential if planning at Kirkwood Community College or at any educational institution is to be of value.

Definition Of Terms

For the purposes of this study, terms that are unique to Kirkwood Community College and distant learning programs at the college are defined below.

Community Education Center - This is an off-campus facility operated by Kirkwood Community College to provide for a range of liberal arts, vocational-technical and community education courses. These sites also serve as instruction points for remote learning facilities such as the telephone network or microwave systems operated by the college.

Director of Non-Traditional Studies - This is the individual responsible for implementation of all distant learning, for-credit offerings involving mediated delivery techniques such as telephone, televison, radio or newspaper.

Instructional Fixed Service Televison - This is a short-range broadcast, interactive televison system allowing transmission of picture and voice in one direction, voice-only in the other. This system requires special receiving equipment and due to cost, will usually be

available only in institutional settings such as schools, hospitals, or nursing homes.

Microwave System - This is the two-way point-to-point interactive audio and visual communications system operated by Kirkwood Community College now connecting one community education center (Iowa City) and the main campus. This system will be expanded to all community education centers by the 1982-83 academic year.

Service Area - This is the seven county geographic territory assigned by state statute to Kirkwood Community College, also known as Area X Community College. This 4,292 square mile area consists of the counties of Benton, Cedar, Iowa, Johnson, Jones, Linn, and Washington, and is located in east-central Iowa. Population data appears in Appendix A.

Telephone Network System - This is the telephone-based communications system connecting all seven community education centers of Kirkwood Community College and utilized as an instruction delivery system.

Limitations And Assumptions

This study has been limited:

1. to the specific members of sample households who chose to respond to the interviewer's questions.
2. by a lack of control on the amount of background or previous experience individuals

drawn in the sample may have had with Kirkwood Community College.

For purposes of this study it has been assumed that:

1. respondents who are part of the sample drawn are representative of the population of the non-metropolitan service area of Kirkwood Community College.
2. interviewer bias will not be a factor in the results obtained.
3. respondents have been honest in their answers to questions asked.

Chapter Two

REVIEW OF RELATED LITERATURE

The literature on needs assessment has been rapidly expanding. Acceptance of the need for such studies has come to be generally recognized:

> Needs assessment is a tool which formally harvests the gaps between current results (or outcomes, products) and required or desired results, places those gaps in priority order, and selects those gaps (needs) of the highest priority for action usually through the implementation of a new or existing curriculum or management process. In order for a needs assessment to be valid and useful, it should include the educational partners of learners, educators, and community members in the process of defining gaps (needs) (English and Kaufman:1975:3-4).

A number of studies have been conducted that examine or attempt to uncover the attitudes of either the learners, educators, or the community. Due to the cost and complexity, few have been conducted that have included all three groups. With sufficient financial resources however, this can be and has been done occasionally as in the case of San Diego Community College The comprehensive examination of all segments of their community, funded by the Mott Foundation, is probably a "best case" example, that provided significant and relatively complete data about their district (Morgan and Feldman:1977:48-52). Unless some other agency or foundation will provide similar funding, it is a pattern that will rarely be replicated, especially with declining per-capita budget allotments to community colleges.

In 1976, a study was completed that related research findings on needs of adult learners in the development of educational televison programming. The authors differentiate between three categories of adult learners: the activity-oriented, the learning oriented, and the goal-oriented. They postulate that "One would therefore, not expect to find activity oriented adults in individualized or home-learning situations (Forman and Richardson:1976:4-5). They do not define however, which adults are likely to return to school or the sorts of coursework they are likely to take.

Another study, conducted at the same time, assesses the needs of adult basic education students at Lewis and Clark Community College. The author develops a hypothesis that differences will exist between male and female and urban and rural respondents in each of the nine areas examined. Analysis of the findings indicate "The appearance of no large differences in the way in which the various groups responded to the questionnaire items related to expressed needs" (Silvester:1976:1). In effect, the needs of all groups he identifies are quite similar.

By 1977, the subject of needs assessment had attracted enough interest that the editors of Educatioral Technology chose to publish a special issue, that of November 1977, dealing with the subject. In this issue, a major article discussed kits, models, and tools available for conducting needs assessments (Witkin: 1977:5-17). The

availability of enough models to justify such an article indicates the scope of the field and the interest therein.

Material has continued to appear, particularly studies of students and former student populations. The most likely explanation is that this is due to the relative ease and low cost with which student populations can be examined. One must recognize that such studies are necessary and cost is not the only reason that they are conducted.

> Asking students what they need is the first and most important step toward developing a comprehensive methodology. Once there are efficient procedures for student self-report, other needs assessment procedures and tools can be developed as staff and money allow (Gill and Fruehling:1979:324).

Agreement with the concept of the significance of student input is general, but there are problems in going beyond studies of students. Sunal describes her efforts in a study of students and community. She included not only students in the community college she surveyed but also other individuals in the community. By her own admission, her non-student population were: "...directly involved with the education of their children in school and non-school settings" (Sunal:1979:140), leading to questions regarding the random nature of the sample drawn.

Another student questionnaire study of adult learners should be cited. This was a comprehensive study conducted on American College Testing Service profiles and reported in 1979. In this study, 19,000 student profiles were carefully examined and evaluated. Two conclusions in

this study stand out in their importance for any institution attempting to attract and retain non-traditional students:

> The data suggest that selecting a college because it offered a particular field of study and the proximity of the institution were of primary importance for all age groups, with the older students placing greater importance on location than the younger groups (Wallace:1979:16).

The stress on utilitarian goals, location and specific major become even more clear when noting the emphasis older students place on the second key area, the academic component of college life: "Apparently adults, particularly older adults, anticipate attending college and involving themselves only with academic activities" (Wallace:1979: 22). Such student studies are important and must be conducted periodically. Without the data they provide, planning would be woefully inadequate.

A second type of assessment study is the faculty-based assessment. The assumption here is that the instructor by his or her intimate contact with the learning process, can provide the data needed to substantially improve both programs and service to students. The National Education Association issued a position paper on needs assessments in the area of in-service educational opportunities for teachers. This document describes types of assessment instruments and outlines procedures for conducting staff assessments in a workshop format (NEA:1975: 1-19).

Probably the most logical basis for faculty-centered assessment research is that: "Assessement is primarily

designed to describe educational trends and to locate problems and successes" (Burton:1979:10). The instructional staff is well positioned to locate and describe such trends.

The final type of assessment study to be examined here is the community-based needs survey. Since 1970, there have been several national surveys of adults and their learning needs and activities (United States Office of Education:1972; Carp, Peterson and Roelfs:1972). Several large regional or state-wide studies have also been conducted that have been quite comprehensive (University of Wisconsin System:1973; Hunter:1974; Hamilton:1976). But when examination is directed at specific community studies conducted by individual colleges, the literature often discusses the need for such studies but relatively few specific examples or details are provided. Rationale for conducting such studies abounds however:

> ...it is appropriate and necessary to develop a systematic, analytical, and factual base of information which will assess the opinions, expectations, and preferences of residents of the various communities. This information in turn will help the college to determine the places where educational centers should be located, the types of educational programs and administrative support services desired by the residents, how these activities should be housed, the preferred time of classes and services, and how the instruction and services may be delivered most effectively and efficiently.
>
> In short, this systematic representative information makes it possible to develop timely, realistic, and reasonable community-based education (Moore:1975:1).

Often these rationales include specific cautions or warnings

designed to improve the studies or increase their value. One such caution is that studies must be evaluated in light of a specific institution and its goals: "...needs must be sifted through the philosophical screen of the sponsoring institution for the defining of objectives" (Monette:1977: 125).

Yet another concern is that sufficient information be obtained to allow action to be taken:

> Like the physician, the educational practitioner should carefully note each and every expression of "Need" and, where appropriate, ask probing questions designed to expand and amplify the information given (Stark:1977:277-8).

Such amplification of data is a problem. If too much detail is demanded,an interviewer may loose the cooperation of respondents but too little may result in a study inadequate to meet institutional needs.

The spacific studies examined indicate that the institutions so involved conducted their studies because they felt a specific need for the data such surveys could provide. At Allegany Community College, for example, a list of study purposes was developed that tied the research clearly to their public relations efforts, their promotional campaigns, and their long and short range institutional planning (Andersen and Reed:1976).

Such studies, and data thereon, were initially few in number:

> After a search through the literature regarding community surveys as performed by institutions of higher education, and specifically on the community college level, the conclusion must be

> drawn that there is a definite lack of substantive reporting on this type of study (Andersen:1977:3).

Or, similar comments from a study in a four-year institution: "One may conclude that surveys are regarded as wholly in-house enterprises and that results generated do not find their way into the literature (Atkinson, Lyons, and Crosby:1972:6-7). In the last few years, such studies have multiplied and the literature has expanded accordingly.

Results that are generated tend to be specific demographic descriptions and lists of stated needs developed from the respondent interviews (Hamilton:1976; Andersen: 1976). Although the results and conclusions have varied from institution to institution, several ideas seem to be constant in all studies. "Enjoyment, distance of travel, cost, length of program, and availability were the most important items respondents considered in deciding to enroll in courses" (Pealer:1978:v).

Several surveys indicated a need for emphasis on traditional services and programming as the prime institutional thrust. Decosno and Baratta, for example, cite the efforts of Moraine Valley Community College (Illinois). Marketing research was used to develop a program to attract new high school graduates. No other group was targeted, but institutional efforts increased full-time equivalent enrollment by over 200 (Decosno and Baratta:1979:1-10). Traditional services to non-traditional students also appeared as a need:

As older students, especially females over thirty

> years of age, comprise an increasing proportion of regular community college enrollments, there will tend to be: ...Continuing lack of enthusiasm for departures from traditional systems of grading and certification (Preston:1976:14-15).

Or, as stated in a Monograph of the American Association of Community and Junior Colleges:

> Preferences regarding learning methods and "place to learn" reflect a traditional attitude. About one-fourth of the adults felt most comfortable with group discussion or lecture. The more common techniques relating to independent study("Open college," courses by radio, T.V., and newspaper received little attention) (Grady:1979:37).

The conclusions reached are not quite as conservative as they might appear. In the same summation of conclusions, Grady states:

> Aside from course content, particular attention should be directed toward developing a skilled faculty aware of "adult learners" and using flexible delivery systems that include off-campus locations (on-the-job or condominiums) and courses via T.V., radio, and newspaper (Grady:1979:37).

Data indicate generally that off-campus locations may be desirable: "The evidence suggests that many people prefer to attend classes in their own neighborhoods." (Larsen :1973:2) or "Fifty to sixty-five percent of the respondents expressed a need for classes which could be completed in their homes...." (Moore:1975:17).

These data may be open to some question however:

> First adults were asked about their interest in televison courses repeated two or three times a week at different times. The response of "very interested" was quite sizable and one would assume this would have a relatively high predictive validity. The reality however, is that the T.V. programming which the college has attempted to date has not resulted in a large measure of success (Selgas:1977: 31-32).

In spite of these questions, the movement toward non-traditional delivery systems appears to be growing and flourishing.

Two further examples of this growth of interest in non-traditional delivery systems might be appropriate. At the University of Alaska:Juneau, a consultant suggested that they: "Consider the sharp expansion and extensive use of non-traditional education at U.A.J." (Johnson:1979:16). He later suggested the use of a telephone conference network, developed by the State Legislature for their own use as an example of such non-traditional systems (Johnson:1979:16-17).

Finally, consultants dealing with educational needs in Coconino County, Arizona, recommended that:

> If a non-traditional community college was established in Coconino County, it seems likely that the full-time student equivalent enrollment during the initial years of operation would be approximately the same as for the traditional college. Thereafter the FTSE would be less. The absence of a traditional campus setting and such extracurricular activities as athletics would cause recent high school graduates to seek a university or traditional community college setting. Conversely, it is estimated that more county residents would be served through the non-traditional approach and therefore we would expect a higher headcount (Richardson and Schultz:1977:45).

All of the studies cited call for change, yet none agree on the nature, degree, or direction this change should take. It may well be that such assessments, in dealing with local conditions will never obtain similar results.

Such studies are clearly useful in the determination of needs of distant learners, non-traditional learners and

any and all other population categories now receiving less than adequate service from community colleges. It may well be that institutional survival will depend on an ability to define, attract, and meet the needs of these diverse groups. "In summary, needs assessment can provide a dynamic means to utilize information available about existing or desired programs and relate these data to the present and future state of the organization's environment" (Marrs and Helge: 1978:1-6).

Chapter Three

METHODOLOGY AND PROCEDURES

This Major Applied Research Project is a descriptive study. It includes the terms used and a discussion of the outcomes obtained in an examination of the stated needs of of the population served by a community college in an urban setting with a relatively large rural service area. As such, this study should prove useful not only in the institution to be surveyed, Kirkwood Community College, Cedar Rapids, Iowa, but to other community colleges with similar service areas.

The community survey conducted is in large part a replication of the mail-out survey conducted by Kirkwood Community College in 1978 as part of the process of development of a comprehensive master plan (Kirkwood Community College:1979:1-83). Since that time, three new course delivery systems; microwave televison, instructional fixed-service televison, and cable televison have been added and an additional community education center has been established. At the same time, Iowa has been affected by the nationwide recession-inflation problem and state revenue and therefore per capita support for community colleges has been cut. Due to these institutional changes and the changed economic and political conditions that now exist, a new survey appeared appropriate.

Based upon a careful examination of the literature, it was determined that a telephone-based survey would be most appropriate:

> Since no viable mechanism exists to ascertain the degree of interest held by out-of-school adults, it was decided that a telephone survey to assess such interests would be made. The telephone survey was decided upon because of (1) The expense involved in face-to-face canvassing the ... district. (2) low rates of returns on mailed questionnaires (3) time limitations on data collection (Redemer:1976:7).

To reflect the use of telephone based survey research rather than a mail-out questionnaire, additional questions have been inserted, others deleted. A copy of the survey instrument, as developed in conjunction with and in consultation with the Directors of Institutional Research and Non-Traditional Studies is attached (Appendix B).

To guarantee equivalency in interview techniques, all have been conducted by the same interviewer. It was assumed that doing so would limit the factor of interviewer bias.

The population examined is that residing within the Kirkwood Community College service area but outside the county in which the college is located. Traditional class offerings will continue to be available at the site of the main campus. Non-Traditional delivery systems will be utilized outside Linn County (the location of the main campus) due to the costs of providing traditional classes in these less densely populated areas (Appendix A).

A diversity in demography necessarily exists in a seven-county service area of 4,292 square miles (Kirkwood Community College:1979:60). Five of the counties served have populations of less than 25,000. These five counties have a large segment of their population in rural areas and small towns. No post-secondary educational opportunities other than those offered by Kirkwood Community College exist in these counties. All have experienced extensive rural school consolidation since World War II and are extremely sensitive about "local" educational opportunity. Johnson County, the largest of the six counties included in the study, is the site of the University of Iowa, with a student population of approximately 22,000 students. The University is the largest employer in the county and, because of its tax-exempt status as a public instiution, a major drain on community and county resources. For many years the University has provided a variety of graduate programs but, has not had a full undergraduate program for night or week-end students. In spite of the presence of the University, Kirkwood Community College draws a large segment of its' student population, credit and non-credit, vocational and liberal arts, from Johnson County.

Linn County, the location of Kirkwood Community College, is the site of three private, four-year liberal arts colleges. Total enrollment is approximately 3,100. They are residential schools and the great bulk of their student population is drawn from outside the county. The

county is primarily industrial and urban. With the exception of a new, proprietary business school with limited offerings, no other post-secondary vocational training exists in the seven counties.

Whatever the demographic pattern, an adequate sample must be drawn. It was arbitrarily determined that a five percent tolerance level would satisfy the scientific requirements of the sample. Based upon reviewed literature, it was estimated that a minimum of twenty percent of the adults surveyed would indicate interest in participation in some type of program offered by a community college (Redemer:1976:8). Response to the 1978 mail-out survey indicated that 33 percent of the respondents either definitely or probably would enroll at Kirkwood Community College within the next five years in a credit or non-credit program (Kirkwood Community College:1979:61). A sample size of 500 was retained to provide a sufficient margin to guarantee the statistical validity of the study at a 95 percent confidence level (Backstrom and Hursh:1963:33).

A key problem was that of drawing a sample:

> Sampling which depends on voluntary participation is of highly dubious worth. Schemes which ask volunteers to rank goals may contain gross selection biases (English:1977:21).

To deal with the sampling problem, a commercial firm, Direct Mail Advertising, Cedar Rapids, Iowa, was utilized. They maintain a continually (monthly) updated list of all households in the eastern half of the State of Iowa, including the seven county service area of Kirkwood Community

College. A geographically stratified random sample was drawn including 500 households, the 384 required and an additional percentage to provide for those who refused to be interviewed or could not be contacted. Those drawn were apportioned so that each county was represented by a number of households in the sample equivalent to the percentage of service area population found in the county. Telephone directories and information services were used to locate missing data and telephone numbers. Each drawn household was notified by letter, in advance, that a member of the college staff would be calling them within the next two weeks to ask them a few questions about their community college. Letters were co-signed with the Director of Institutional Research of the college and mailed on college letterhead in small enough groups to ensure that respondents would be called within the specified two week time period. A copy of the letter mailed is contained in Appendix C. All calls were made between 3:00 and 8:00 P.M. on weekdays, 10:00 A.M. and 5:00 P.M. on Saturdays and 3:00 and 6:00 P.M. on Sundays. These time parameters were chosen to minimize bias based on respondent's employment status.

A minimum of five attempts was made, on different days and at different times, to contact each sampled household. The interviewer spoke either (a) to the person who answered the telephone or, (b) if a child answered, asked to speak to a parent or (c) to any adult present. A total of 428 were interviewed from the 500 households drawn for a

successful completion rate of 85.6 percent.

Data were recorded on a copy of the questionnaire while the respondent was being interviewed. At the end of each calling day, all data were coded onto tally sheets in numeric format and missing data indicated. Upon completion of the interview process, a nine-week period, all data were entered into the computer and verified for errors against the tally sheets.

Descriptive statistical data were generated through the use of a computer assisted computational program called A-Stat. This program was developed in 1979 by Gary M. Grandon and is a subset of P-Stat 78, the statistical package used by Princeton University, modified for use on an Apple II Computer. This package allows development of frequency distributions, bivariate tabular presentations and chi-square values. These data are presented in both tabular and narrative form as part of this Major Applied Research Project.

These data, and the MARP generated will be made available to the Director of Institutional Research the Director of Non-Traditional Studies, the Central Planning Office, the Dean of Arts and Sciences, and the Head of the Social Science Department. In addition, a copy of the Major Applied Research Project will be placed in the college library.

It is further assumed that microfiche copies will be made available through Nova University to Nova students

and others interested in assessment of community needs. This MARP will also be submitted to the Educational Resources Information Center for inclusion in the E.R.I.C. document collection. It is hoped that the data generated will thereby prove useful to other institutions with similar service areas and needs.

Chapter Four

PRESENTATION OF RESULTS

A total of 500 households were drawn as a sample for this study. Four hundred and twenty eight, or 85.6 percent were successfully contacted and interviews were conducted. The sample was geographically stratified and included representative proportions from each of the six Non-Standard Metropolitan Statistical Area counties in the service area of Kirkwood Community College. Data on sampled counties, their population, sample drawn and response rate appear in Appendix D.

A total of 123, or 28.7 percent of all respondents, indicated that they had taken one or more classes from the college. One hundred and eighty one, 42.29 percent, stated that they would like to take courses from the college within the next five years. Among the 181, there was quite a range in terms of courses or programs in which they were interested. The largest single group, 43.1 percent, indicated they hoped to take non-credit community education offerings. The remainder suggested other types of courses. A listing of respondent interests follows in Table 1.

Educational goals varied widely. The two most often cited were personal growth, stated by 57.2 percent of all responding and a good job, suggested by 27.2 percent. Goals mentioned by interviewees who intend to take coursework

within the next five years follow in Table 2.

When asked about the subjects on which they would wish to concentrate, no real consistency appeared. The largest numbers were either undecided, 25.56 percent of those cited, or the same percentage, indicating other items beyond those specifically listed in the questionnaire. Usually the "other" category items were non-credit, personal growth activities offered by the Community Education Divison of the college. Data on subjects respondents wish to enroll for are summarized in Table 3.

Table 1

Enrollment Plans

Program Type	Frequency	Percentage
Undecided	4	2.21
Vocational-Technical	45	24.86
College Transfer	42	23.20
High School Completion or Adult Basic Education	3	1.66
A Non-Credit Course	78	33.09
A Job-Related Course	9	4.97
Total	181	100.00

Utilizing different delivery systems, coursework is made available at different locations throughout the college service area. Courses are provided in traditional settings on the main campus. They are offered in community education centers throughout the remaining six counties of the service

area utilizing microwave televison, instructional fixed service televison or a telephone network delivery system. They are available at home through broadcast or cable televison. Respondents were asked where they would prefer to take classes. Eighteen and eighty nine hundredths percent, indicated they would prefer to go to the main campus in Cedar Rapids. Seventy seven and seventy eight hundredths percent, stated a preference, even with microwave televison or telephone formats for courses in community education centers near their homes. Only 3.33 percent, indicated a preference for coursework on either broadcast televison or cable televison at home.

Table 2

Primary Educational Goals

Goal	Frequency	Percentage
Good Job	49	27.22
4 Year Degree	3	1.67
2 Year Degree	12	6.67
More Than A Four Year Degree	3	1.67
Personal Growth	103	57.22
Change Jobs	1	.55
High School Diploma	5	2.77
Other	4	2.22
Total	180	100.00

When asked about time preference, 69.44 percent of

those interested in taking classes indicated a preference for evenings. Fourteen and forty four hundredths percent wanted only day classes and 12.78 percent were willing to take either day or evening classes. Only 3.33 percent were interested in weekend offerings.

Table 3

Subject Areas of Planned Concentration

Subject	Frequency	Percentage
Humanities/Fine Arts	13	7.22
Science/Mathematics	5	2.77
Social Science/History	10	5.56
Vocational:Health	10	5.56
Vocational:Business	27	15.00
Vocational:Agriculture	6	3.33
Trade or Industry	17	9.44
Undecided	46	25.55
Other	46	25.55
Total	180	100.00

An overwhelming 83.89 percent, stated they would only want to take one class a term. An additional 9.44 percent indicated they would take no more than two classes each term. Only 6.66 percent of those responding intended to become full-time students at this time.

When questioned regarding problems in enrolling in

classes, 58.65 percent anticipated no problems. Forty one and thirty-four hundredths percent foresaw difficulties. The most common problem, cited by 41.56 percent of respondents anticipating difficulty, was family responsibility In Table 4 the problems anticipated are summarized.

Table 4

Anticipated Problems in Enrolling

Problem	Frequency	Percentage
Family responsibilities	32	41.56
Work responsibilities	13	16.88
Live too far away	6	7.79
Don't have the money	4	5.19
Need housing near the college	1	1.29
Need special services (childcare, etc)	1	1.29
Other factors	20	25.97
Total	77	100.00

All individuals who indicated they would take classes within the next five years were asked how they had learned about courses offered by Kirkwood Community College. None indicated newspaper articles or radio stations as a factor. The comments aggregated as "other" primarily appear to have been flyers sent home with school children or poster advertising in businesses. The information on how people have learned about courses is summarized in Table 5.

Table 5

Sources of Information About Courses

Source of information	Frequency	Percentage
Newspaper advertisements	66	37.28
Televison advertisements	1	.56
Mail-out information	67	37.85
Other	43	24.28
Total	177	100.00

Respondents who indicated they had no plans to take courses from the college were asked why not. Responses varied but the largest single group indicated they felt they were "too old" to go to school. All stated reasons for non-enrollment appear in Table 6.

Each individual interviewed was asked if other family members had enrolled for one or more classes through Kirkwood Community College. Sixty three and forty six hundredths percent said no, 8.89 percent named a community education (non-credit) course or seminar. The remainder, 27.65 percent, indicated some type of credit course.

The number of residents in each household was very similar to the population averages indicated by Census data as shown in Appendix A. Household size appears in Table 7.

Educational level claimed within the interviews indicates the diversity of the population served by Kirkwood Community College. These data appear in Table 8.

Table 6

Reasons For Non-Enrollment

Reason	Frequency	Percentage
I've already completed my education	63	25.10
Kirkwood doesn't offer what I need or want	7	2.78
Cost is too high	2	.79
I don't think they offer quality education	2	.79
I'm too old	124	49.40
Other	51	20.32
Total	249	100.00

Table 7

Number of People in Household

Number	Frequency	Percentage
1	89	20.84
2	149	34.89
3	63	14.75
4	73	17.09
5	35	8.19
6	10	2.34
7 or more	8	1.87
Total	427	100.00

Number employed provided little valid data. Full-time housewives alternately defined themselves as employed

and not employed. When dealing with jobs held, the largest single category was "other." The failure to provide a specific category for retired individuals was responsible for a large segment of this "other" category. A summary of occupational data appears in Table 9.

Table 8

Educational Level

Educational level	Frequency	Percentage
Less than high school graduate	100	23.40
High school graduate	161	37.70
Less than two years of post-high school work	53	12.41
Two or more years post high school, less than four	41	9.60
A four-year college degree	38	8.89
Graduate work	34	7.96
Total	427	100.00

The average respondent in this study was more than forty years of age. Sixty four and sixteen hundredths percent of the population was in this category. Nine and thirteen hundredths percent were between 36 and 40, the same percentage between 31 and 36. Seven and ninety six hundredths percent were between 26 and 30, 6.79 percent between 21 and 26 and only 2.81 percent were 20 or younger.

Table 9

Current Occupation

Occupation	Frequency	Percentage
Laborer	20	4.93
Skilled trades	9	2.11
Sales	17	3.99
Self-employed	35	8.21
Office work	31	7.27
Technician	10	2.34
Professional	54	12.67
Manager or supervisor	21	4.93
Farmer	21	4.93
Factory worker	18	4.22
Homemaker	59	13.85
Other	130	30.52
Total	428	100.00

Because of the large number refusing data on income and the number of retired individuals, income information provided relatively little data. Size of community, indicated the relative balance in college district residence patterns outside Linn County, the site of the main campus. Twenty one and ninety six hundredths percent came from rural areas, 21.49 percent from small towns, 26.16 percent from small cities and 30.37 percent from Iowa City-Coralville, the other city in the college service district. Of

those surveyed, 38.41 percent responding were male, 61.59 percent were female.

Table 10

Type of Program by Previous Student Status

Program type	Has taken Kirkwood courses	Has not taken Kirkwood courses	Total (1) # (2) %
Undecided	1	3	4 2.21
Vocational-technical course	22	23	45 24.86
College transfer course	23	19	42 23.2
High School completion	0	3	3 1.66
Non-credit class	51	27	78 43.09
Job-related class	7	2	9 4.97
Total (1) # (2) %	104 57.46	77 42.54	181 100.00

A group singled out for close examination was the segment of respondents who stated they might enroll for courses through Kirkwood Community College within the next five years. One hundred and eighty one people, 42.29 percent of those interviewed so indicated. Of this group, 104, or 57.46 percent had enrolled before. Seventy seven, or 42.54 percent, had not previously taken classes. Previous student status and the type program in which they

feel they might enroll are displayed in Table 10.

Comparison of student status at Kirkwood Community College and enrollment of other family members at the college provided no great surprises. Data based on these variables is presented in Table 11.

Table 11

Other Enrolled Family Members and Previous Student Status

Other family members	Has taken Kirkwood classes	Has not taken Kirkwood classes	Total (1) # (2) %
No other in family enrolled	70	201	271 63.47
Yes, took Arts & Sciences	13	30	43 10.7
Yes, took Vocational-Technical	21	48	69 16.16
Yes, took basic education courses	0	2	2 .47
Yes, took High School completion	1	3	4 .94
Yes, took other work at Kirkwood	18	20	38 8.9
Totals (1) # (2) %	123 28.81	304 71.19	427 100.00

When examination was made of previous student status at Kirkwood Community College and the number of persons living in the respondent's household, some variation did occur. Respondents from one and two person households appeared less likely to enroll. These data appear in Table 12.

Table 12

Number in Household and Previous Student Status

Number in household	Has taken Kirkwood classes	Has not taken Kirkwood classes	Total (1) # (2) %
1	13	76	89 20.84
2	32	117	149 34.89
3	24	39	63 14.75
4	27	46	73 17.1
5	18	17	35 8.2
6	5	5	10 2.34
7 or more	4	4	8 1.87
Total (1) # (2) %	123 28.81	384 71.19	427 100.00

Further examination of data indicate that 72 respondents over forty years of age live in one person households and 131 respondents in the same age category live in two person households. Since 124 individuals indicated that their reason for non-enrollment was age, this smaller than expected enrollment of persons from one or two person households may well be a function of age rather than household size.

Comparison of previous student status at the college and community size indicates a near-equivalency in marketing

success to population proportions from each community size. These data appear in Table 13.

Table 13

Size of Community of Residence and Previous Student Status

Community size	Has taken Kirkwood classes	Has not taken Kirkwood classes	Total (1) # (2) %
Rural	22	72	94 21.96
Small town	31	61	92 21.95
Small city	29	83	112 26.17
Iowa City	41	89	130 30.37
Total (1) # (2) %	123 28.74	305 71.26	428 100.00

When size of community of residence is compared with intention to enroll within the next five years, a pattern somewhat similar to that of community size and previous enrollment is obtained. These data are displayed in Table 14.

Subjects or areas of emphasis in enrollment, as stated by respondents have already been discussed briefly (Table 3). When these subject areas are examined by sex, more women than men list areas of study other than those cited and many more men than women chose subjects within the Trade and Industry category. Results of comparing those respondents who intended to enroll and the subject they

plan to take, classified by sex of respondent, appear in Table 15.

Table 14

Size of Community and Want to Enroll in Future

Community size	Want to enroll	Don't plan to enroll	Total (1) # (2) %
Rural	37	57	94 21.96
Small town	40	52	92 21.5
Small city	45	67	112 26.17
Iowa City	59	71	130 30.37
Total (1) # (2) %	181 42.29	247 57.71	428 100.00

The question of why people choose not to enroll was briefly examined in Table 6. In Table 15, the subjects respondents wish to take were examined by sex. Differences did occur. In examining reasons for not enrolling by sex, differences again occur. When the differences in total numbers of respondents of each sex are considered, men are more likely to indicate they have completed their education or that Kirkwood doesn't offer what they want or need. Women are more likely to respond that they are too old to go to school. Sex and reasons for non- enrollment appear in Table 16.

Table 15

Subject Respondent Plans to Take by Sex

Subject wanted	Male	Female	Total (1) # (2) %
Humanities/ Fine Arts	5	8	13 7.22
Science/ Mathematics	2	3	5 2.78
Social Science/ History	3	7	10 5.56
Vocational: Health	3	7	10 5.56
Vocational: Business	7	20	27 15.00
Vocational: Agriculture	3	3	6 3.33
Trade and Industry	12	5	17 9.44
Undecided	16	30	46 25.56
Other	9	37	46 25.56
Total (1) #	60	120	180
(2) %	33.33	66.67	100.00

Informing the population of the service district of the college what is available is also a key concern. How respondents learned about courses was cataloged in Table 5. Since differences by sex had been a factor in the subjects in which respondents would enroll (Table 15), and in reasons stated for non-enrollment (Table 16), examination was made of sex as a factor in how respondents obtained

information about course offerings. When adjustment is made for the difference in number between the sexes, little difference in sources of information can be seen. These data appear in Table 17.

Table 16

Reasons For Non-Enrollment by Sex

Reasons for non-enrollment	Male	Female	Total (1) # (2) %
Completed my education	31	32	63 25.1
Kirkwood doesn't offer what I need	5	2	7 2.79
Cost is too high	0	2	2 .8
Classes are too far away	1	1	2 .8
Don't think they offer quality education	1	1	2 .8
I'm too old	45	79	124 49.4
Other	24	27	51 20.32
Total (1) # (2) %	107 42.63	144 57.37	251 100.00

If sex appears to be a differential factor in subjects wanted and in reasons for non-enrollment, then age of respondents might be different between the sexes. In Table 18, these data are listed. Examination indicates similarity in age patterns between the sexes of respondents.

Table 17

Sources of Information About Courses by Sex

Source of information	Male	Female	Total (1) # (2) %
Newspaper advertisements	21	45	66 37.29
Televison advertisements	0	1	1 .56
College mailings	20	47	67 37.85
Other	16	27	43 24.29
Total (1) # (2) %	57 32.2	120 67.8	177 100.0

Respondents, when contacted tended to be quite co-operative. Though several declined to be interviewed, of those that did, only two of the 428 responding indicated personal negative reaction to the college.

A large number, 71, or 16.58 percent of the 428 respondents requested some sort of specific information be mailed to them. The information requested was usually for either the individual interviewed or a member of their immediate family. When asked to share concerns about Kirkwood Community College, the responses were few in number and quite varied. Comments made tended to be positive and quite supportive of the concept of comprehensive community colleges generally and of Kirkwood Community College specifically.

Table 18

Age of Respondents And Their Sex

Age category	Male	Female	Total (1) # (2) %
20 or under	7	5	12 2.8
21-25	11	18	29 6.79
26-30	11	23	34 7.96
31-35	18	21	39 9.13
36-40	17	22	39 9.13
Over 40	100	174	274 64.17
Total (1) # (2) %	164 38.41	263 61.59	427 100.00

Chapter Five

INTERPRETATION, CONCLUSIONS AND RECOMMENDATIONS

Interpretation of Results

This study has been limited to the specific members of sample households who chose to respond to the interviewer's questions. It has also been limited by a lack of control on the amount of background or previous experience individuals drawn in the sample may have had with Kirkwood Community College and in application of results to respondents to the survey. For purposes of this study, it has been assumed that respondents who are part of the sample are representative of the population of the non-metropolitan service area of Kirkwood Community College and that interviewer bias was not a factor in the results obtained.

This study has been based upon examination of a college in an urban county serving an additional six county, primarily rural service area. Key problems currently facing the institution are those facing similarly situated institutions across the country. These problems include determining the needs of current and potential students and in what courses they might choose to enroll. They also involve student willingness to accept nontraditional delivery methods, especially in the rural counties where class offerings are economically infeasible.

Determination must also be made of how best to inform them of what is available and how to register.

The rate of successful completion of interviews from the sample drawn was high. The lowest successful completion rate by county was 79.16 percent, the highest, 94.91 percent. Total successful completion rate was 85.60 percent. The data on response rate appear in Appendix D. Due to the relatively high total response rate, a bias study has not been conducted.

When enrollment plans of respondents were examined, 181 of 428 indicated they intended to enroll within the next five years. When credit transfer and Vocational-Technical potential enrollees were added, a total of 87 planned to take credit offerings. The number planning to enroll in either general interest, non-credit classes or classes related specifically to their jobs was equal to the number who intended to take credit classes, 87. Potential interest appeared therefore to be equally divided between credit and non-credit programs. If frequency and duration of enrollment is the same, with non-credit enrollees taking as many classes as those enrolling for credit classes, growth rates should be approximately equally divided between credit and non-credit programs. Within credit areas, growth should be nearly equally divided between Vocational-Technical and Liberal Arts offerings.

The goals cited by respondents in returning to school were clearly not degree oriented. Of the 180 who

indicated a plan to enroll, 109 viewed more education as a form of personal growth, 49 more saw it as aiding them on their job. Only 15 were pursuing either a two or four year degree. As a result, if these plans remain constant, little new degree-oriented enrollment could be expected. Enrollment in courses that interest them could add significantly to total enrollments in several areas, but may not increase numbers in required courses. A personal growth orientation rather than a predictable plan of enrollment such as a degree plan would require will make planning course offerings substantially more difficult.

When questioned about academic plans, especially in terms of subject areas in which they wished to concentrate, a majority of the 180 planning to return to school, 92 indicated they were uncertain about what they wished to take or suggested an interest in an area not among those listed (Table 3). The only subject area mentioned by more than ten percent was business, listed by 15 percent of the respondents. The lack of focus and clear direction will make planning for future enrollment quite difficult.

A major concern in undertaking this study was willingness of students to enroll in classes utilizing nontraditional instructional modes. Population density in five of the six non-metropolitan counties of the Kirkwood Community College service area is too low to allow for more than an occasional for-credit course offering and even limits the offering of community education courses (Appendix A). If

more courses were to be offered, non-traditional delivery systems would have to be utilized. Foreman and Richardson described adult learners as activity oriented, goal oriented or learning oriented. They present a clear case for the activity oriented individual not being a candidate for home instruction (Foreman and Richardson:1976:4-5). Would these individuals be interested in media-based sessions at area community education centers or, for that matter would either of the other groups Foreman and Richardson cite? This concern was greatly lessened when 77.78 percent indicated they would be willing to take this type of class.

Six interviewees, 3.33 percent, were interested in courses offered by broadcast televison. At first this appears quite low but, a 1980 study of enrollments in broadcast televison classes indicated that 116 individuals, about 2.3 percent of the student population, were enrolled in broadcast courses. In the 1980 study, with 76 of 116 responding, only 19, 25 percent of respondents, had a clear preference for televison coursework (Rosberg:1980:17). It would appear that interest in convenience and taking classes close to home is tempered by a desire to interact with others. The number willing to accept media-based instruction but choosing to travel to a local or area community education center is encouraging.

An overwhelming 83.89 percent wish to take no more than one course at a time. In addition 69.44 percent prefer evening courses. The fact that most employment opportunity

in the non-metropolitan service area of the college occurs during the day and that the largest segment of potential enrollees are taking courses for personal growth, 57.22 percent, probably basically explain these preferences. Coursework does not appear to be viewed as essential out rather desirable. It is seen as a part-time addition to schedule rather than a full-time commitment. Most additional course offerings should probably be at night. This has clear implications for staffing and scheduling.

Only 77 individuals of 180 planning to enroll anticipated any problem with enrollment. Of these, 32, or 41.56 percent saw possible conflict with family responsibilities. Thirteen saw a possible conflict with work responsibilities. No other factor, and none the college could easily control or provide such as child care or on-campus housing appeared to be a major problem. Though a concern, factors cited and the possible lost enrollments as a result appear beyond college control.

Enrollment depends on course information. Obtaining information therefore, is essential. The most effective source of information according to respondents is college mailings with 37.85 percent of respondents obtaining their information in this fashion. Almost the same number, 37.28 percent, saw college advertising in their local newspaper. Both modes are effective but both are expensive. A surprisingly large number 24.28 percent, indicated some other source of information. Those most often cited were fliers

their children brought home from school and posters at work or in stores they frequented. When examining cost, it may well prove that posters and handouts through the schools are most cost-effective.

Of the 428 respondents interviewed, 249 did not intend to enroll within the next five years. The most common reason for non-enrollment, cited by 124, 49.40 percent of those in this category was "I'm too old." In spite of the progress made in attraction of older students, the number of individuals in this category indicates that much remains to be done. A second category, 63 individuals, 25.10 percent, indicate they have already completed their education. Again, more work by the institution appears to be needed. When almost 75 percent of the population who do not plan to attend see themselves as having completed their education or as too old to go to school, improved marketing strategies, directed specifically at these groups appears wise.

The large number of one and two person households may well require some change in marketing strategy. More than 55 percent of non-metropolitan service area respondents are living in one or two person households. Specific market targeting of these individuals as a population category appears justified.

The service area of Kirkwood Community College includes a rather well-educated population. Of the 427 respondents, 38.86 percent indicated some post-high school

education. Only 23.4 percent have less than a high school diploma. Fifty and eleven hundredths percent are high school graduates but have less than two years of post-secondary education. If the assumption is made that potential students must be drawn from this more "traditional" market for community colleges, approximately half of the total population is automatically excluded. Increasing enrollment necessarily means attracting both those with less than a high school diploma and those with more than two years of post-secondary education.

Population age characteristics are also a factor to be considered. With 64.16 percent of the respondents over forty years of age, the impact of an aging population is a reality. Coursework must meet the needs of this age category if growth is to continue.

When previous enrollment at Kirkwood was compared with other variables, it became apparent that student recruitment has progressed at a similar rate in all community sizes. Differences do occur in conjunction with household size. One of the best recruitment tools is clearly the enrollment of another family member at the college. It is apparent that the success of those who have taken courses encourages other family members to enroll.

Future enrollment plans indicate a good spatial balance in recruitment. Percentages who plan to enroll from rural, small town, small cities, and the Iowa City area all intend to enroll in percentages approximately equivalent to

their proportion of the non-metropolitan population of the college service district. It is important to maintain this pattern and prevent the college from becoming identified in the public mind with any one segment of it's service area.

Examining reasons for non-enrollment by sex indicates several differences. Males are proportionally much more likely to feel that Kirkwood Community College doesn't offer what they need or to state that they have completed their education. Both sexes frequently cite age as a reason for non-enrollment. These concerns have been dealt with earlier in this paper.

In the course of this project, three items in particular stand out. The first is that a relatively high percentage of respondents have taken classes from Kirkwood Community College. Twenty eight and seventy three hundredths percent is a substantial segment of the respondents to have attracted. The second is the willingness of the respondents to consider non-traditional instructional delivery systems. When presented with a range of options, only 18.89 percent indicated they would prefer to travel to the main campus rather than utilize a non-traditional delivery system nearer home. The third concern is age. Close examination of non-metropolitan service area population data indicate that 31.07 percent of the population are 19 years of age or under and therefore unlikely to be a prime respondent in a telephone survey in which the interviewer speaks to the first available adult. Thirty three and

thirty nine hudredths percent of the population as a whole is over forty years of age. Almost 50 percent of the population over nineteen is over forty years of age. Overrepresentation of individuals over forty years of age is further enhanced by the high percentage of such individuals living in one-person households. twenty and eighty four hundredths percent of all respondents live in one person households. A total of 77.73 percent live in households of two persons or less. Crosstabulating number of persons in a household with age of respondents indicated that 72 persons of age 40 or more live in one person households, an additional 131 persons in the same age category live in two person households. Forty seven and forty two hudredths percent of all respondent households were occupied therefore by one or two persons and the respondent was forty years of age or older. Though an over-representation of individuals in this age category exists, it appears to be a result of drawing households in such a sample rather than individuals. Though average respondent age was a concern, it appears to be one for which accounting can be made.

Conclusions

Only two individuals out of the 428 respondents were negative toward Kirkwood Community College. In both cases, this negativism was based upon lack of success in a program by a member of their immediate family. Concerns were voiced about program expansion, new construction in an inflationary

period, and about specific course offerings but, even when concerns were raised, overall attitude was favorable.

The large number of respondents who have taken or plan to take non-credit community education courses is significant. If one basis for student recruitment is successful experience in college-offered coursework by other family members, these classes clearly reflect an effective mode of recruitment. Dissemination of information on all types of college offerings, non-credit, credit vocational and college transfer could well aid in student recruitment.

The age structure of the service area is clearly a concern. Marketing strategies and class offerings aimed at the older individual appear desirable. These strategies should deal specifically with the idea that "I'm too old", and "I've already completed my education."

Generally, the non-metropolitan service area respondents appear satisfied with the idea of media-based two way instruction if it can be provided in centers nearer their home than the main campus site. Some increase in enrollment in broadcast televison coursework appears possible, but this seems to have much more limited acceptance than media-based instruction involving two-way interaction.

More night classes are needed. Stated preference for evening offerings and general intent to enroll will not guarantee full classes, especially with the varied interests that were indicated in Table 3. Addition of evening classes appears to be the most logical area of curricular expansion.

Based upon their research and in response to pressures they foresaw on the community college, Cohen and Associates stated:

> The colleges would do better to accept the idea of no growth and use the time to improve what they have. The managers of many corporate conglomerates have learned to their sorrow that continuous growth leads eventually to diminishing returns and a lack of institutional flexibility. The repeated calls for a "new mission" are a debilitating diversion (Cohen and Associates:1975:164).

In some communities or given different physical conditions, their advice might well be sound. Given the response of the individuals surveyed, growth and an expanded mission appear quite appropriate for Kirkwood Community College.

Recommendations

Within the service area of Kirkwood Community College, four other institutions of higher education exist. These are Coe College, with an enrollment of about 1100, Cornell College, with approximately 1000, Mt.Mercy College with about 1000, and the University of Iowa, with approximately 22,000 students. Community college program success will continue to depend upon provison of service to a broad segment of district population.

A major recommendation would be closer cooperation with the non-credit community education divison of the college to increase awareness of credit course options and their availability. Secondly, a broad range of differing types of courses should be offered using the media-based delivery systems available. Since approximately 15 percent

of respondents indicated an interest in business courses, these should definitely be offered but a range of other subjects, both credit and non-credit should be provided to familiarize area residents with the delivery systems and their potential.

Specific results should be useful within Kirkwood Community College in planning and developing new remote delivery systems and in the introduction of these systems to the potential student population. Data on citizen willingness to travel to community education centers as opposed to the main campus, their feelings about media-based delivery systems, and demographic data about the nature of the potential students themselves, should all aid in the facilitation of improved planning to meet their needs.

Nationally, dissemination of such data will aid in similar rural-urban situations. Determination of perceived needs, though directly applicable only to the institution and respondents surveyed, will provide assistance in planning at other institutions as well. Determination of and response to perceived community needs might aid some institutions to survive the enrollment changes of the eighties.

It is assumed that the data generated and methodology described might contribute to both the literature and the understanding of perceived community needs and thus, to an improvement in educational practice by providing a model for development and thereby change to meet new situations now emerging.

Approval was secured from the appropriate administrators at Kirkwood Community College, Cedar Rapids, Iowa, to conduct the research needed in preparation of this study. In so doing, arrangements were made for internal dissemination of copies of both the data and the Major Applied Research Project to the Head of the Social Science Department, the Dean of Arts and Sciences, the Central Planning Office, the Director of Non-Traditional Studies, and the Director of Institutional Research. In addition, a copy of the Major Applied Research Project will be placed in the college library.

Administrators involved in approval of this research using the name of the institution all indicated an interest in the project and suggest that the outcomes will be used in both long and short-range planning. No commitment has been made, nor can it be made, to implement recommendations in the final Major Applied Research Project until such time as these recommendations have been submitted and studied.

The completed Major Applied Research Project will be available on microfiche through Nova University. One or more journal articles relating to the study will be developed and submitted for publication and the MARP will be submitted for inclusion in ERIC.

> The community college is no longer a "giver" to those who are inclined to accept its gifts; its newer role is cooperation with the community in joint efforts to put people back together in meaningful human endeavors (Harlacher:1974:6).

The goal of this Major Applied Research Project has been the

provison of data and recommendations based upon these data to facilitate such efforts.

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APPENDIX A

POPULATION DATA ON COUNTIES SERVED BY KIRKWOOD COMMUNITY COLLEGE

TABLE 19

Population Data On Counties Served By
Kirkwood Community College

County Name	1970 Population	1980 Est. Population	No. of Households	Persons per Household
Benton	22,885	23,953	7,357	3.11
Cedar	17,655	17,687	5,661	3.12
Iowa	15,419	15,458	4,965	3.11
Johnson	72,127	81,468	22,491	3.21
Jones	19,868	19,856	5,949	3.34
Linn	163,213	168,041	50,855	3.09
Washington	18,967	18,807	6,136	3.19
Totals	330,134	345,270	103,414	3.19

APPENDIX B

TELEPHONE SCRIPT AND QUESTIONNAIRE: PERCEIVED EDUCATIONAL NEEDS

TELEPHONE SCRIPT AND QUESTIONNAIRE:
PERCEIVED EDUCATIONAL NEEDS

The script and questions that follow are to be read in a conversational voice. Questions are to be read in order and the responses recorded as given by the respondent. For some questions, it will be necessary to read several alternative choices. When alternatives are to be read, they appear in standard typewritten format. When they are to be used as categories in coding, but not read to the respondent, the whole alternative, including its numeric designation, will appear in parenthesis. The script follows:

Good afternoon. My name is Bill Rosberg and I am calling for Kirkwood Community College. I hope you received a letter from us in the past week or two indicating that I would be calling. I'd like to take just a couple of minutes to ask you a few questions. The information you provide will help us to serve you better!

1. Have you ever taken classes offered by Kirkwood Community College?
   (1. yes.)
   (2. no.)

2. Within the next five years, would you like to take any courses from Kirkwood?
   (1. yes.)
   (2. no.)

- -

If yes, continue. If no - to question 12.

- -

3. Do you know what you would take?
   (1. undecided.)
   (2. a Vocational or a Technical course:_____.)

(3. a college transfer course:_____.)
(4. High School completion or an adult basic education course.)
(5. a non-credit course or courses that interest me:_____.)
(6. some courses that would help me on the job:_____.)

4. What are your primary educational goals?
(1. a good job.)
(2. a four year degree.)
(3. a two year degree.)
(4. more than a four year degree.)
(5. personal growth.)
(6. to change jobs.)
(7. to meet people.)
(8. a high school diploma.)
(9. other:_____.)

5. What subject(s) would you concentrate on while at Kirkwood?
(1. transfer:Humanities/Fine Arts.)
(2. transfer:Science/Mathematics.)
(3. transfer:Social Science/History.)
(4. vocational-technical:Health Occupations.)
(5. vocational-technical:Business.)
(6. vocational-technical:Agriculture.)
(7. vocational-technical:Trade or Industry.)
(8. undecided.)
(9. other:_____.)

6. If you took Kirkwood courses would you rather:
1. Go to the main campus in Cedar Rapids?
2. Go to a community education center in your area which utilizes telephone or microwave instruction.
3. Or take broadcast televison or cable televison courses at home.

7. If you took courses in any of these ways, which would you prefer:
1. Classes both days and evenings.
2. Days only.
3. Evenings only.
4. Weekends only.
5. One day a week, all day.

8. Most classes carry 4 hours of credit. A full-time student usually takes three or four classes. How many classes do you think you would want to take in a term?
(1. one.)
(2. two.)
(3. three.)
(4. four.)
(5. more than four.)

9. Is there anything that might keep you from enrolling at Kirkwood?

(1. yes.)
(2. no.)

- -

If the response is yes, ask question 10, if no, omit 10.

- -

10. What sort of problems do you forsee?
    (1. family responsibilities.)
    (2. work responsibilities.)
    (3. live too far away.)
    (4. don't have the money.)
    (5. need housing near the college.)
    (6. need special services (childcare, etc. - specify: _____).)
    (7. other factors: _____.)
11. How have you heard about Kirkwood courses?
    (1. newspaper articles.)
    (2. newspaper advertisements.)
    (3. radio (station: _____).)
    (4. televison (station: _____).)
    (5. mailers.)
    (6. other: _____.)

- -

If no on #2, answer #12. If 3-11 were answered, omit #12.

- -

12. Why don't you think you'd go to Kirkwood in the next five years?
    (1. I've already completed my education.)
    (2. Kirkwood doesn't offer what I want or need which is: _____.)
    (3. cost is too high.)
    (4. classes are too far away.)
    (5. I don't think they offer quality education.)
    (6. I'm too old.)
    (7. I'm too young.)
    (8. other: _____.)

- -

All should be asked the following:

- -

13. If anyone else in your family has taken courses at Kirkwood, do you know what they took or are taking?
    (1. No one in the family has taken courses from Kirkwood.)
    (2. Yes, Arts and sciences.)
    (3. Yes, Vocational-Technical.)
    (4. Yes, Adult Basic Education.)
    (5. Yes, High School completion.)
    (6. Yes, other: _____.)
14. How many people live in your household?
    (1. one.)
    (2. two.)
    (3. three.)
    (4. four.)
    (5. five.)

(6. six.)
(7. seven or more.)

15. What was the last educational level you reached before you left school?
(1. less than a High School graduate.)
(2. High School graduate.)
(3. less than two years past High School.)
(4. two or more years of college but less than four.).
(5. a four year college degree.)
(6. graduate work.)

16. Are you currently employed?
(1. yes.)
(2. no.)

17. How would you describe your current job?
(1. laborer.)
(2. skilled trades.)
(3. sales.)
(4. self-employed.)
(5. office work.)
(6. technician.)
(7. professional.)
(8. manager or supervisor.)
(9. farmer.)
(10. factory worker.)
(11. homemaker.)
(12. other:_____.)

18. I'm going to read a list of age categories. I'd appreciate it if you would indicate the one that applies to you:
1. 20 or under.
2. 21-25.
3. 26-30.
4. 31-35.
5. 36-40.
6. over forty.

19. I'm going to read a list of income categories. I'd appreciate it if you would indicate which your family falls into:
(1. refused.)
2. under 10,000.
3. 10,000-14,999.
4. 15,000-19,999.
5. 20,000-24,999.
6. 25,000-29,999.
7. over 30,000.

- -

Questions 20-22 can usually be coded without asking the respondent. Ask only if necessary.

- -

20. Do you live in:
(1. a rural area.)
(2. a small town.)
(3. a small city.)
(4. Iowa City.)

21. County of residence:
    (1. Benton.)
    (2. Cedar.)
    (3. Iowa.)
    (4. Johnson.)
    (5. Jones.)
    (6. Washington.)
    (7. Other:_____.)
22. Sex:
    (1. Male.)
    (2. Female.)

- -

All should be asked questions 23 and 24.

- -

23. Can I send you any information about Kirkwood Community College?
24. Do you have any concerns about Kirkwood you'd like to share?

Thank you so very much for your help!

APPENDIX C

ADVANCE LETTER TO THOSE DRAWN IN SAMPLE

ADVANCE LETTER TO THOSE DRAWN IN SAMPLE

Dear Citizen of East-Central Iowa,

Kirkwood Community College would like to ask for your help. We want to determine the educational needs of our area and how Kirkwood can help meet them.

To know what your needs are, and how we may continue to serve you, one of our instructors, Mr. William Rosberg, will be telephoning you within the next two weeks. We hope that you will be willing to discuss the needs that you, as a taxpayer and citizen see and how we, as your community college can help.

We must know what the residents of this area expect of Kirkwood and we thank you for your willingness to help us in that regard. We assure you that your answers will be confidential and at no time will we ever identify those who responded.

Cordially yours,

Dr. Donald Page, Director
of Institutional Research.

William H. Rosberg
Instructor, Social Science
Department.

APPENDIX D

NUMBER DRAWN IN SAMPLE AND RESPONSE RATE BY COUNTY

TABLE 20

Counties Sampled And Response Rate

County	Population 1970	Number Drawn in Sample	Number Interviewed	Percentage Responding
Benton	22,885	69	60	86.95
Cedar	17,655	53	50	94.33
Iowa	15,419	46	39	84.78
Johnson	72,127	216	171	79.16
Jones	19,868	59	56	94.91
Washington	18,967	57	52	91.22
Total	166,921	500	428	85.60

BIOGRAPHICAL SKETCH

BIOGRAPHICAL SKETCH

William H. Rosberg was born and reared in Chicago, Illinois, a graduate of Augustana College, Rock Island, Illinois, has an M.A. in Social Studies Education from The University of Iowa. His publications include a book of readings, Perspectives in American Government, published by Simon and Schuster in 1971, and several articles dealing with environmental education. The most recent, "Delivery and Content Matched in New Energy Course," co-authored with L. Bean and E. Poduska, appeared in the Iowa Science Teacher s Journal in 1980.

Rosberg has been involved in a large number of different projects involving development of curricular materials and presentation of courses involving non-traditional delivery systems. During the past eleven years, spent at Kirkwood Community College, Cedar Rapids, Iowa, he has developed materials for self-paced audio-visual-tutorial, computer assisted, telephone network, broadcast televison, and microwave televison courses.

He has also been involved in development of a series of four, team-taught, multi-disciplinary courses dealing with environmental concerns. One of these courses, "Energy Today" has been cited several times nationally for both content and mode of presentation. This course was the subject of a formal presentation, by Rosberg, at the 1980 meetings of the National Council for Geographic Education.

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